CLAIMS

What is claimed is:

1.   A method for recovering data transmitted over a plurality of channels in a wireless code division multiple access communication system, the method comprising:

receiving the plurality of channels as a received signal, each channel associated with a code;

subtracting for each of the plurality of channels others of the plurality of channels from the received signal and despreading a result of that subtracting as data for that channel.

2.   The method of claim 1 wherein the subtracting others of the plurality of channels including for each channel:

despreading the received signal with the others channels codes;

respreading the despread others channel codes using the other channels codes; and

subtracting from the received signal the respread other channels.

3.   The method of claim 2 wherein the despreading is performed by a mixer.

4.   The method of claim 2 wherein the despreading is performed by a matched filter.

5.   A receiver for recovering data transmitted over a plurality of channels in a wireless code division multiple access communication system, the receiver comprising:

means for receiving the plurality of channels as a received signal, each channel associated with a code;

means for subtracting for each of the plurality of channels, others of the plurality of channels from the received signal and despreading a result of that subtracting as data for that channel.

6.   The receiver of claim 5 wherein the means for subtracting includes for each channel:

means for despreading the received signal with the others channels codes;

means for respreading the despread others channels codes; and

means for subtracting from the received signal the respread other channels.

7.   The receiver of claim 2 wherein the despreading means is a mixer.

8.   The receiver of claim 2 wherein the despreading means is a matched filter.

9.   A receiver for recovering data transmitted over a plurality of channels in a wireless code division multiple access communication system, the receiver comprising:

an input configured to receive the plurality of channels as a received signal, each channel associated with a code; and

for each of the plurality of channels, a subtractor for subtracting others of the plurality of channels from the received signal and despreading a result of that subtracting as data for that channel.

10.   The receiver of claim 9 further comprising:

for each channel, a first mixer operatively coupled to the input for despreading the received signal with that channel code;

for each channel, a second mixer for respreading that channel despread signal; and

wherein for each channel, the subtractor subtracts from the received signal the respread channels other than that channel.

11.   The receiver of claim 9 further comprising:

for each channel, a matched filter operatively coupled to the input for despreading the received signal with that channel code;

for each channel, a mixer for respreading that channel despread signal; and

5   wherein for each channel, the subtractor subtracts from the received signal the respread channels other than that channel.